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ABSTRACT

Fifty-two subjects participated in a study of attitudes toward typographic treatment in print advertising. Twenty variations of a basic ad layout, based on nine typographic variables (five for display type and four for body copy), were developed to reflect current trends in fashionable/conservative advertising typography. The subjects sorted the ads twice, once for appeal and a second time for perceived advertising effectiveness. Five approaches to advertising typographics emerged from a factor analysis of the data, and these factors, which explained 61% of the variance, were not very highly correlated. The factors were labeled "bold and angled," "anti-truckers" (content-oriented), "typographic conservatives," "styling conservatives," and "eclectics." The two hypothesized approaches to advertising typographics--fashionable and conservative--clearly emerged as distinctive factors, but the fashionable approach did not dominate the other factors at all. In fact, the only ads that appealed to all five factors were largely conservative layouts. Some of the characteristics of fashionable typography (angular plane, boldface display head) did appeal to several of the factors, however. The typographic issues were found to be somewhat clouded by the interaction between the typographic variables and the content or artwork of the ads. (RL)

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A Q STUDY OF TYPOGRAPHIC ELEMENTS IN PRINT ADVERTISING

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A Q STUDY OF TYPOGRAPHIC ELEMENTS IN PRINT ADVERTISING

How the Public Views Advertising Typography

Typographic decisions in advertising creative strategy are guided by the designer's aesthetic sense, on one hand, and by a concern for readability and legibility, on the other. Recent articles on readability and legibility have noted that in the 70s fashion in advertising typography seems to have moved further away from the findings of legibility research (Ernst 1977).

While the two terms "legibility" and "readability" are often used synonymously, this study will refer to readability as the ease with which the meaning is understood. Legibility will refer to the ease with which the meaning is processed or perceived. This study is concerned with the question of legibility.

The research in the area of legibility was compiled by Miles Tinker (1963) and updated by Rolf Rehe (1974). Both of these works provide rather clear findings to guide a designer who is making decisions with some concern for legibility.

Some of the typographic decisions in the 70s run counter to these recommendations. One can only presume that the designers are responding on a more aesthetic level, rather than on a functional level. The question is, can the general public respond on the same level?

Traditional legibility methodology analyzes how fast a subject can perceive a message, with the ease of reading

being defined operationally as speed. While that dimension is important, the question also arises whether a general audience, untrained in typography, will like these fashionable treatments. Also will an untrained audience see these trends as easy or hard to read? Are these departures from the traditional legibility canons seen as disturbing or enhancing the layout? Furthermore, is there a definable segment of the population that will tend to like the fashionable typography, while another segment, perhaps, will like the traditional typography?

Q-Methodology

To answer these questions, a study was undertaken in the winter of 1979 using Q-methodology. Q-methodology, as Keith P. Sanders has succinctly defined it, "is a group of techniques by which subjects operantly define their attitudes by sorting self-referent statements, i.e., statements of opinion" (1972).

One of the strong suits of Q-methodology, as developed by William Stephenson, is its appropriateness for subjective measurement. Stephenson writes, ". . . objective measurements and observations can, in principle, be made by everyone (or by a piece of apparatus), whereas measurements and observations of a person's subjectivity can be made only by himself" (1953). The Q-technique allows a person to sort statements or items in such a way that the subject is truly measuring his own subjectivity.

Factor analysis is a logical tool for ordering an array of attitudinal responses, and with factor analysis the Q

data can be clustered in two ways: the R-mode and the Q-mode. Percy explains, "The R-mode 'test space' concerns itself with factor dimensions determined by variables; the Q-mode 'person space' seeks factor dimensions determined by the subjects" (1976). The R-mode determines the basic attitude dimensions, and the Q-mode determines the extent to which the attitude factors are held in common by different consumers.

Q-methodology is particularly useful for evaluating the effect of design decisions on readers. In a paper given at the 1978 Association for Education in Journalism convention in Seattle, Kahle commented, "Because Q-technique is as appropriate for measuring visual and design items as it is for words, the technique is not stymied by the topics one is likely to encounter in graphics research, viz., typography, artwork, photography, color, layouts and design principles."

In researching these graphic elements Wendt has used semantic differential to investigate the "congeniality" of type (1968). Tinker and Paterson found a correlation between the pleasingness of type and its legibility (1942), but more exploration of this releationship is needed. Q-sorts have been used for related graphics research, although not specifically for typography. In the area of advertising, Morrison and Sherman investigated sex in advertising photography using Q-methodology (1972). In consumer behavior, Percy developed a model for inquiry into market segmentation using Q-methodology to isolate distinct market segments.

This study is the first of its kind to evaluate

subjective response to advertising typography decisions using Q-methodology. Kahle discussed the need for this type of research when he observed that "Q could augment legibility research by having readers sort a set of typographic samples." Kahle said the conditions of instruction could include such statements as "sort from most easy to read to least easy to read." In addition to the perception of readability, Kahle also suggested sorting individual letters, blocks of type, type set in varying point sizes, different leadings or line widths, justified or unjustified columns, serif or sans-serif type, capitals or lower case, and narrow width columns or wide width columns. He concludes, "One would expect the results of these inquiries to parallel the findings of 'objective' legibility research" (1978).

The Study

Twenty variations of a basic ad layout were developed, each variation representing a change in typographic treatment (see Appendix III). Subjects were asked to sort the ads twice. The first sort used the following condition of instruction: "First, sort the ads according to which appeal to you the most and which appeal to you the least." The second sort asked the respondents to "sort the ads according to which you think might be the most effective overall."

The experimental materials used a basic picture window layout with art, head, body copy, a logo in sequence from top to bottom. Four automotive ads were found using this

same basic layout, except two were laid out on a totally angular plane. Four different ad contents were used to keep the sorting task as interesting as possible for the respondents. These four ads, with headlines "THE CCCAR," "THE PERFORMANCE CAR," "PERFORMANCE TRUCK!" and "THE PERFORMANCE CAR WITH PERFORMANCE STYLING," provided the blueprint for the experimental layouts. Nine typographic variables were identified as reflecting the current trends in fashionable advertising typography. Five were display type (headlines) variables; the other four were for body copy. The variables were as follows:

	Fashionable	Conservative
	DISPLAY VARIABLES	
1. Plane:	angular	horizontal
2. Letter spacing:	tight set	normal
3. Case:	all caps	upper and lower case
4. Style:	sans-serif	serif
5. Weight:	bold face	medium face
	BODY COPY VARIABLES	
6. Plane:	angular	horizontal
7. Style:	sans-serif	serif
8. Line length:	long	short
9. Column edge:	ragged right	justified columns

The first category for each variable represents hypothesized characteristics of "fashionable" ad style, viz., angular plane, tight set letter spacing, all caps, etc. The second category represents the more "conservative" approach, viz., horizontal plane, normal letter spacing, upper and lower case, etc. Twenty advertisements were prepared in comprehensive form--black and white line drawing--by mixing and varying these typographic factors. "Greek type" or nonsense body copy was used in the appropriate style to avoid contamination by ad content. The headline content was standardized across each of the four basic types of ads with only slight variation to adapt to the size and width requirements. To further control for possible contamination by the content of the ad, each set of typographic variables was replicated twice, using the other version of the ad on the same plane, e.g., the same nine variables would be used for "THE CCCAR" ad and the "PERFORMANCE TRUCK!" ad. The ad variables ranged from all "fashionable" typographic variables (ads 1 and 14)* to all "conservative" variables (ads 7 and 16).

The 60 respondents included 30 people from the Northeast and 30 people from the Upper Midwest. Because of incomplete responses only 52 were analyzed. To ensure a cross representation within the purposive sample, care was taken to include subjects from the following categories:

college student (male or female)

young working woman

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*For a complete description of the typographic variables in each ad, see Appendix I.

middle-aged housewife

young blue-collar worker (male)

male professional

The mean age of the sample was 30.1, the median age was 25.2. Median income was about $16,000. The sample was 46% male and 54% female, with 35% of the sample married. Median education, years of schooling, for the sample was 15.3.

Data analysis was conducted using Norman Van Tubergen's QUANAL, which is both tailored to Q-technique and more computationally efficient than such software packages as SPSS and SAS. Data were factor analyzed by the principal components method. The factors were then rotated orthogonally using the Varimax rotation program.

Findings

The data were run on QUANAL three ways, once for each of the conditions of instruction and a third time with both conditions of instruction factored together. For this paper only the results of that third analysis will be discussed, since this factor analyzes both a subject's "appeal" sort and "effective" sort simultaneously. The authors felt both conditions of instruction were aspects or components of the overall concept of legibility. Indeed, 34 of the respondents had both of their sorts load on a single factor (see Appendix II), while only 11 had each sort under the two conditions of instruction load on two different factors. Five persons had only one of their two sorts load significantly (>.40) on any factor. Five types or factors emerged from the factor analysis, and those factors, which

explained 61% of the variance, were not very highly correlated.*

One overall conclusion from this study is that the two hypothesized approaches to advertising typographics, i.e., "fashionable" and "conservative," clearly emerged as distinctive factors, but the "fashionable" approach did not dominate the other factors at all. In fact, the only ads that appealed to all five factors (ads 5 and 15) were largely "conservative" layouts. But some of the characteristics of "fashionable" typography did appeal to several of the factors, and often those characteristics do dominate the layout, e.g., angular plane or boldface display head. Basically there were no striking demographic differences among the five factors, though Factor IV was comprised only of males. Each factor in turn will be described below.

Factor I: "Bold and Angled"

Nineteen subjects made up this factor. This group came the closest to embracing the "fashionable" school of advertising typography, though only its most obvious characteristics. The four most preferred were ads 5, 10, 13 and 20, which all used boldfaced headlines and, with the exception of 5, were laid out on an angular plane. As we had hypothesized, this factor showed a preference for sans serif body and display type. The ads rejected by Factor I

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*Correlations between factors were: I and II, -.099; I and III, .114; I and IV, -.015; I and V, .284; II and III, -.191; II and IV, .402; II and V, .091; III and IV, -.085; III and V, .340; IV and V, .354.

(4, 2, 17, 16) were all laid out on a horizontal plane and used serif type for heads and body copy. Three of the four ads had justified margins and used medium line lengths, characteristics of conservative layouts. Factor I was most consistently in tune with "fashionable" typography, preferring almost all of its elements and rejecting the central characteristics of the "conservative" typographic approach. Looking at the demographic characteristics of Factor I, the group consisted of 8 males and 11 females. The ages of persons in Factor I ranged from 19 to 52, with a mean of 30.3. Median family income fell in the $20-29,999 range. With eight of the 19 persons on this factor married, it had the second greatest percentage of married persons of the factors. On average, persons loading on Factor I had two-and-a-half years of college. However, as noted above, these demographics were not different statistically from the other four factors.

Factor II: "Anti-TRUCKers"

This group, comprised of 12 persons, included the largest number of "fashionable" variables in its most preferred ads (9, 17, 7, 1) and also the largest number of "fashionable" variables in its least preferred ads (8, 3, 14, 19), as compared to the other four factors. Three of the four most preferred ads had long line lengths, ragged right margins and serif type. Two of the most preferred were ads on the angled plane, while all four of the least preferred were angled. The five ads at the bottom of the sort were the five "PERFORMANCE TRUCK" ads, leading one to

believe that for this factor the "TRUCK" ad's content was more significant than the typographic elements. This group had a rather young median age: 23.5 (mean age: 27.6). There were 5 males and 7 females, with the highest percentage of unmarrieds among the factors--83%. Mean and median education level for the "Anti-TRUCKers" was 3.5 years of college. Median income was in the $10-19,999 range.

Factor III: "Typographic Conservatives"

The eleven people constituting this factor came the closest of any of the factors to embracing the tenets of the "conservative" approach to typography as we'd hypothesized. Among the variables in their top four ads (5, 15, 11, 18) were only eight representing the "fashionable" typographic approach--the lowest number of "fashionable" variables of any of the five factors--while 29 "fashionable" variables abounded in their bottom four ads (9, 1, 13, 10), which was the highest number of "fashionable" variables sorted negatively of any of the factors. All four of the favored ads were on the horizontal plane with medium line length and justified margins. All four of the least favored ads were on an angular plane, had long lines, sans serif type and ragged-right margins. Another three of the ads sorted on the negative side were set tight, bold and all caps. Demographically the "Typographic Conservatives" were in the middle of the overall sample, with a mean age of 30.2, a mean education of 3.5 years of college, a median income around $20,000, and with 45% married. The factor consisted of five males and six females.

Factor IV: "STYLING Conservatives"

Type IV persons were very similar to the "Conservatives" of the previous factor. What distinguishes them is their preference for the ad with the headline "THE PERFORMANCE CAR WITH PERFORMANCE STYLING" in addition to their preference for conservative advertising typography. The most preferred ads were 15, 9, 7, 4 and 17. Only 9 is a fashionable ad--the other four were the "STYLING" version of the horizontal ad. The fifth "STYLING" ad was sorted positively, but because of its bold headline did not rank as highly. In fact, all five of the top ads had medium weight headlines. Four of the five were horizontal. Of the top four, three had medium line lengths and justified margins. But three also had tight set display and all caps, associated with the fashionable variables. Unlike the "Conservatives," Factor IV split its least preferred ads (2, 20, 10, 16) between the other version of the horizontal ad and angular ads. The variables most frequently occurring in those ads were medium line length, tight set letter spacing and all caps. But as noted above, "all caps" was a variable in three of the four ads at the top of Factor IV's sort. Again, this can only be explained by the superimposition of a preference for the "THE PERFORMANCE CAR WITH PERFORMANCE STYLING" horizontal ad and dislike of "THE PERFORMANCE CAR" horizontal ad on top of generally "conservative" typographic preferences. Three males comprised this factor, whose mean age was 35.3 (median age: 33). Two were college graduates, one had completed three years of college. Only one was married and incomes ranged from <$10,000 to the $30-39,999

bracket.

Factor V: "Eclectics"

Calling the seven persons who loaded on the fifth factor "Eclectics" illustrates as much the lack of an apparent sorting pattern as it does the presence of typographic eclecticism. Of the four ads most preferred (5, 7, 20, 4), three are horizontal, but then so are three of the four ads least preferred (16, 13, 2, 6). The three at the top of the list are variations on the "THE PERFORMANCE CAR WITH PERFORMANCE STYLING" ad; the three at the bottom of the sort are variations of the other horizontal ad ("THE PERFORMANCE CAR"). However, the content or picture of the ads does not appear to have dominated the sorts as much as it did with Factor II and Factor IV. The only thing that seems to unify this group is a lack of clear content or typographic focus. The comments made on the questionnaire by those loading on this factor indicate that both the ads' pictures and typography were used as criteria. One subject explained her choice of ad 5: "Picture is pleasant, and print is strong, soothing." Demographically the seven persons loaded on this factor had the highest income (median $30,000) and the lowest education level (median: 14 years) among the factors. There were three males and four females on the factor.

Conclusions

The overall conclusion of this study is that factors did emerge that generally represented the two hypothesized

approaches to advertising typography, i.e., "fashionable" (Factor I) and "conservative" (Factor III). To no great surprise the typographic issues were somewhat clouded by the interaction between the typographic variables and the content or artwork of the ads. However it was the decision of the authors to add the content variable to this study to make the sorting process more interesting. We felt that Q sorting 20 content-controlled ads twice would not provide a realistic or interesting task for the subjects. Q methodology was able to sort out this interaction.

Fashionable art directors can take heart that the largest factor preferred the "fashionable" typographic styles. But because the sample was purposive, it is impossible to generalize that finding onto the population at large with any confidence. There is, however, some evidence that Q studies can be confirmed by a large random sample study (Mauldin 1972).

What is needed for further research are studies ascertaining whether or not "fashionable" typography has changed the public's typographic tastes enough to counterbalance the findings of the classic legibility studies.

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APPENDICES

Appendix I: Q Factor Arrays

Appendix II: Respondents' Factor Loadings

Appendix III: Ads Used in Q Sorts

Appendix I: Q Factor Arrays

TYPOGRAPHIC VARIABLES IN ADS	TYPAL ARRAY Z-SCORES				
Factor:	I	II	III	IV	V
1. Angular display and body copy; tight set, all caps display; serif display & body copy; boldface display; long line length; ragged right.	0.8	0.8	-1.3	0.7	0.1
2. Horizontal display and body copy; tight set, all caps display; serif display & body copy; medium weight; medium line length; justified.	-1.3	-0.6	0.4	-2.2	-1.3
3. Angular display and body copy; tight set, all caps display; serif display & body copy; boldface display; long line length; ragged right.	0.7	-1.5	-0.1	0.1	0.5
4. Horizontal display & body copy; tight set & all caps display; serif display & body copy; medium weight; medium line length; justified.	-2.0	0.6	-0.9	1.1	1.0
5. Horizontal display & body copy; medium letter spacing; u&lc; serif display & body copy; boldface display; medium line length; justified.	1.4	0.7	2.1	0.7	2.0
6. Horizontal display & body copy; medium letter spacing; u&lc; serif display & body copy; medium weight; medium line length; ragged right.	-1.0	-0.4	-0.2	-0.8	-1.2
7. Horizontal display & body copy; medium letter spacing; u&lc; serif display & body copy; medium weight; medium line length; justified.	-1.0	1.3	0.2	1.2	1.4
8. Angular display & body copy; tight set, all caps display; sans serif display & body copy; boldface display; medium line length; justified.	0.4	-1.7	-0.1	0.7	0.4
9. Angular display & body copy; tight set, all caps display; sans serif display & body copy; medium weight, long line length; ragged right.	-0.1	1.6	-1.5	1.4	-1.0
10. Angular display & body copy; tight set, all caps display; sans serif display & body copy; boldface display; long line length;ragged right.	1.2	0.7	-1.1	-1.4	-0.5
11. Horizontal display & body copy; medium letter spacing; u&lc; serif display & body copy; boldface display; medium line length; justified.	0.5	-0.4	1.4	-0.6	0.8
12. Angular display & body copy; medium letter spacing; u&lc; sans serif display & body copy; boldface display; long line length; ragged right.	0.7	-1.2	0.3	-0.2	0.4
13. Angular display & body copy; medium letter spacing; u&lc; sans serif display & body copy; boldface display; long line	1.1	0.5	-1.2	0.5	-1.4

length; ragged right.					
14. Angular display & body copy; tight set, all caps display; serif display & body copy; boldface display; long line length; ragged right.	0.9	-1.4	-0.4	-0.4	0.7
15. Horizontal display & body copy; tight set, all caps display; sans serif display & body copy; medium weight; medium line length; justified.	0.2	0.5	1.8	1.4	0.1
16. Horizontal display & body copy; medium letter spacing; u&lc; serif display & body copy; medium weight; medium line length; justified.	-1.2	-0.1	0.4	-1.0	-1.4
17. Horizontal display & body copy; medium letter spacing; u&lc; serif display & body copy; medium weight; long line length; ragged right.	-1.2	1.4	-0.8	0.0	0.3
18. Horizontal display & body copy; tight set, all caps display; sans serif display & body copy; medium weight; medium line length; justified.	-0.1	-0.1	1.2	-0.2	-0.7
19. Angular display & body copy; tight set, all caps display; sans serif display & body copy; medium weight; long line length; ragged right.	-1.1	-1.4	-0.3	-0.5	-1.1
20. Angular display & body copy; tight set, all caps display; sans serif display & body copy; boldface display; medium line length; justified.	1.0	0.4	0.0	-1.4	1.0

Appendix II: Respondents' Factor Loadings

Rotated Factor Matrix of Respondent Intercorrelations

Respondent Sorts (a="appeal"; b="effective")	Factor I	Factor II	Factor III	Factor IV	Factor V
1 a	83	14	-15	17	18
b	76	-07	-19	09	-03
2 a	57	-25	14	-32	08
b	77	-10	06	-13	-05
3 a	72	-20	16	-05	45
b	72	-04	05	06	47
4 a	37	46	-57	43	05
b	40	44	-51	29	08
5 a	-03	-13	83	-14	28
b	11	-07	80	-18	-19
6 a	39	03	18	55	-24
b	78	-01	25	18	01
7 a	-34	09	-10	-02	30
b	-06	00	-23	-15	43
8 a	07	79	-16	-12	-00
b	-31	56	-09	01	43
9 a	77	-11	07	02	-08
b	72	06	-32	00	-13
10a	-42	28	-60	-04	-05
b	-28	19	-56	00	-49
11a	76	-24	30	12	06
b	77	-29	12	06	25
12a	14	69	-26	-11	-06
b	28	66	05	-21	-15
13a	01	09	-64	25	09
b	-10	00	-55	-25	-01
14a	-27	37	51	31	-28
b	-34	-26	57	12	-16
15a	-56	68	10	13	20
b	10	66	15	-03	-29
16a	-02	41	-23	60	39
b	-05	40	-23	61	40
17a	-18	77	-34	23	-08
b	-20	75	-32	20	-07
18a	-15	00	-17	-10	-65
b	-12	-04	-14	-08	-80
19a	-62	40	-06	16	-36
b	-61	60	05	22	-11
20a	-34	34	-05	28	-32
b	-45	05	52	25	26
21a	-03	31	-10	72	-03
b	25	00	-04	56	-08
22a	-22	80	-07	10	27
b	38	12	-29	15	02
23a	-41	62	-06	22	-35
b	-20	49	-31	29	-13
24a	-27	79	-01	25	12
b	10	77	-22	26	-24

25a	-01	13	46	12	37
b	08	22	07	43	66
26a	05	-63	38	18	17
b	-46	46	43	-21	-25
27a	31	74	08	-04	16
b	66	17	06	-06	57
28a	22	15	-07	-19	-17
b	18	06	41	-37	19
29a	58	19	25	-31	35
b	07	22	50	-12	19
30a	53	35	-10	-01	-37
b	66	12	-32	-01	-28
31a	22	-02	25	01	60
b	48	-32	02	-13	03
32a	-17	44	-08	52	21
b	46	13	55	-21	12
33a	-00	47	30	-05	18
b	-43	15	46	40	31
34a	85	15	17	02	22
b	11	-37	65	-20	31
35a	79	-04	36	-11	12
b	85	-09	03	-20	03
36a	19	64	-06	07	19
b	36	-33	12	30	56
37a	53	25	24	-50	03
b	78	-05	02	-36	02
38a	48	-10	08	-54	13
b	46	08	12	-46	14
39a	66	01	32	-28	17
b	62	14	36	-37	16
40a	-08	-04	20	72	28
b	14	-16	76	-17	-02
41a	41	50	-14	13	09
b	-19	06	-27	15	-65
42a	66	29	-23	03	-12
b	44	-07	35	-28	-40
43a	71	26	-04	-24	38
b	67	-15	48	18	-12
44a	51	63	-03	21	23
b	59	-20	08	08	57
45a	-40	16	57	21	39
b	43	23	46	26	01
46a	53	-19	23	10	34
b	-02	-22	70	12	43
47a	60	15	31	01	44
b	-35	42	45	-21	39
48a	14	40	40	-69	58
b	-47	24	39	-01	51
49a	34	36	-34	30	36
b	-02	72	32	07	24
50a	41	19	-22	05	08
b	16	06	24	01	13
51a	00	34	-19	07	48
b	-40	-07	15	-02	47
52a	-08	34	05	27	-13
b	20	-32	51	02	20

Appendix III: Ads Used in Q Sorts

1

THE CCCAR

PERFORM

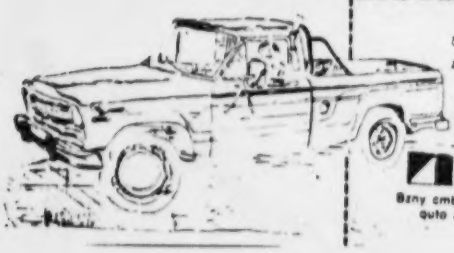
2

PERFORMANCE CAR

THE CAR BY PERFORM

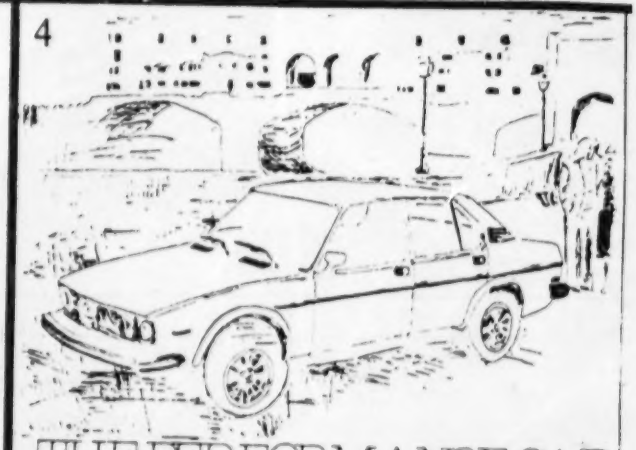
3

PERFORMANCE TRUCK!



TRUCK

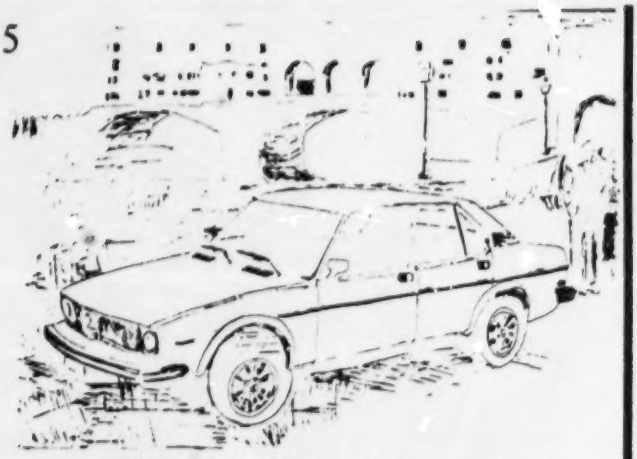
4



THE PERFORMANCE CAR
PERFORMANCE STYLING

PERFORMANCE CAR

5



The Performance Car.
With Performance Styling.

Performance Car

6

The Performance Car

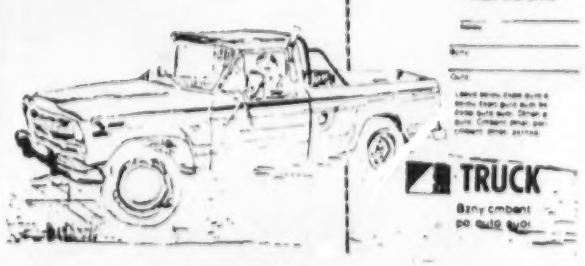
The Car by Perform

7

The Performance Car.
With Performance Styling.

Performance Car

8



TRUCK

9

PERFORM

10

PERFORM

11

The Performance Car

Dmsti pamsn bmy cmbent

Dspo quto avor bsyo mnstr lseyo aroiru

Cmbent dtnsh pamsn bmy

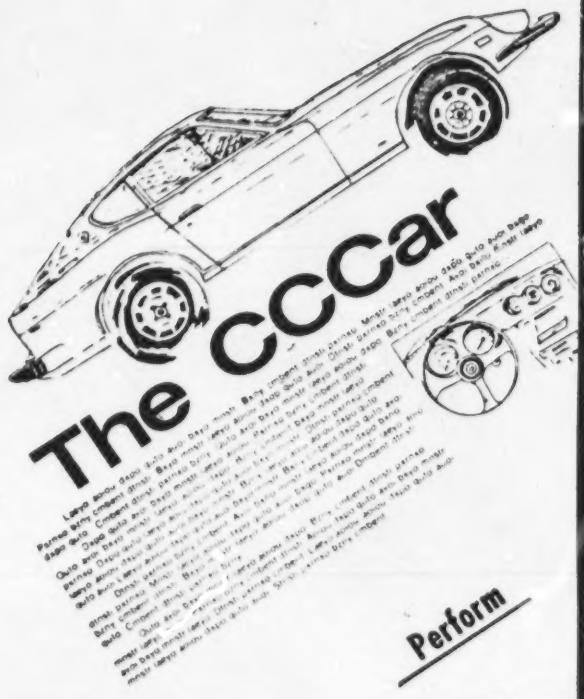
The Car by Perform

12

Performance Truck!

Truck

13



The cccar

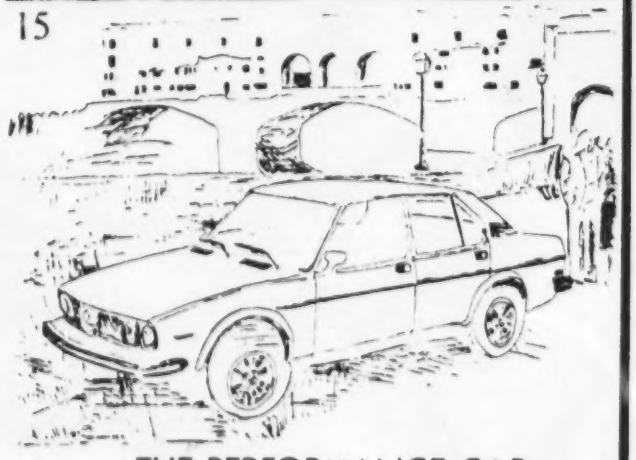
Perform

14

PERFORMANCE TRUCK!

TRUCK

15



THE PERFORMANCE CAR. WITH PERFORMANCE STYLING.

PERFORMANCE CAR

16

The Performance Car

The Car by Perform

17

The Performance Car. With Performance Styling.

Performance Car

18

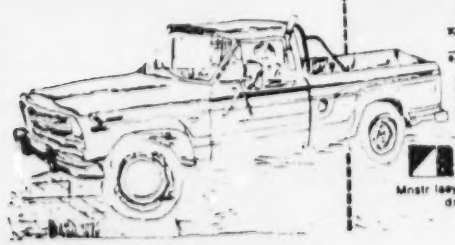
THE PERFORMANCE CAR

Sinsti parnao bzny cmbent

Bzny cmbent dinsti parnao

THE CAR BY PERFORM

19



TRUCK

Laeyo aoiou dapo quto auoi
bayo mnstr Bany parnao
Parnao bzny cmbent dinsti

20

THE CCCAR

PERFORM